



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0016

JOHN ELIAS BALDACCI
GOVERNOR

DAVID A. COLE
COMMISSIONER

October 15, 2004
Subject: Livermore
Project No. NH-3513(40)
PIN 3513.40
Bid Amendment No. 1

Dear Sir/Ms.:

Please make the following changes to your bid documents:

On the "Schedule of Items", page 5, Item No. 615.07 "Loam" delete the quantity of 4476.000 M3 and replace with 3500.000 M3.

On the "Schedule of Items", page 5, Item No. 619.1401 "Erosion Control Mix" delete the quantity of 30.000 M3 and replace with a quantity of 1050.000 M3.

On the "Schedule of Items" page 9, under section 0003, Pavement Alternate 2, delete in its entirety Item No. 202.20 "Removing Bituminous Concrete Pavement", quantity of 40000.000 M2.

On the "Schedule of Items" page 9, under section 0003, Pavement Alternate 2, Item No. 203.20 "Common Excavation" delete the quantity of 48438.000 and replace with a quantity of 55188.000.

On the "Schedule of Items" page 10, under section 0004, Pavement Alternate 3, delete in its entirety Item No. 202.20 "Removing Bituminous Concrete Pavement", quantity of 40000.000 M2.

On the "Schedule of Items" page 10, under section 0004, Pavement Alternate 3, Item No. 203.20 "Common Excavation" delete the quantity of 41028.000 and replace with a quantity of 47778.000.

Make these changes in Pen and ink.

Add the attached three pages entitled "Special Provision Section 401 Hot Mix Asphalt Pavements (hot stabilized Asphalt Base)" dated October 14, 2004.
(This may be used in place of PMRAP for Pavement Alternate 1 at the Contractor's option)



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Please make the following changes to the Plan Sheets:

On Plan sheet No. 6 of 237 entitled "Typical Sections" add the following Note:

7) Salvaged Bituminous pavement cannot be utilized in the upper 150mm or blended with the ABCG, Type B.

On Plan Sheet No. 11 of 237 entitled "Estimated Quantities & Earthwork Summery" Item No. 615.07, "Loam" delete the Quantity of 4476 M3 and replace with 3500 M3.

On Plan Sheet No. 11 of 237 entitled "Estimated Quantities & Earthwork Summery" Item No. 619.1401 "Erosion Control Mix" delete the quantity of 30 M3 and replace with a quantity of 1050 M3.

On Plan sheet No. 11 of 237 entitled "Estimated Quantities & Earthwork Summery" Under Pavement Alternate # 2, delete in its entirety Item No. 202.20 "Remove Bituminous Concrete Pavement", quantity of 40000.000 M2.

On Plan Sheet No. 11 of 237 entitled "Estimated Quantities & Earthwork Summery" Under Pavement Alternate # 2, Item No. 203.20 "Common Excavation" delete the quantity of 48438.000, and replace with a quantity of 55188.000.

On Plan Sheet No. 11 of 237 entitled "Estimated Quantities & Earthwork Summery" Under Pavement Alternate # 3, delete in its entirety Item No. 202.20 "Removing Bituminous Concrete Pavement", quantity of 40000.000 M2.

Under Pavement Alternate # 3, Item No. 203.20 "Common Excavation" delete the quantity of 41028.000 and replace with a quantity of 47778.000.

Make these changes in pen and ink.

The Department has received the following requests for information:

Q) Concerning the Livermore Project, under what item is the preload paid under, along with associated items for this part of the project?

R) *The initial surcharge between Station 2+680 and Station 2+780 will be paid as Item 203.25, Granular Borrow. Any additional surcharge material that may be needed if settlement exceeds the calculated amount will meet the requirements of Item 203.24, Common Borrow, and will be paid as this Item. Removal of any surcharge required for embankment construction will be paid as Item 203.20, Common Excavation. These quantities will be determined in the field during construction.*

Q) What type of gravel are you looking for under Aggregate Base Course-Screened?

R) *The type of gravel will be Item 304.08, Aggregate Base Course – Screened, and will meet the requirements of MDOT Standard Specification 703.06, Aggregates for Base and Subbase Type B.*

Q) Item 534.71-Precast conc. Box Culv.- L.S...includes both box culverts as one lump sum?

R) *The Lump sum price includes both Box Culverts.*

Q) Box @ sta 1+390- drainage schedule says... 1300 x 3900
Plan Sheet says.....2100 x 4000
X – Sections say.....2100 x 3900
Which one is correct?

R) *The cross-pipe @ Sta 1+390 should be 2100mm x 4000mm, length of 20 meters with square ends.*

Q) A list of areas is given under the “Common Ex” item listed on the Construction Notes on the plans (sheet 14). Does the Common Ex listed there go with the Base bid or one of the Alt’s?

R) *These areas listed are for common excavation associated with cross-pipes and is included in each of the Bid Alternates.*

Q) In the Alternates- Item 202.20 Removing Bituminous Concrete Pavement, do you really want us to spend the money to grind it? Would reclaim be acceptable?

R) *Pavement Removal will be paid under item 203.20. “Common Excavation” See new changes to the “Schedule of Items” for alternates 2 and 3. Also, new Note No. 7 on Plan Sheet No. 6 of 237, entitled Typical Sections*

Q) Re: Expanded Shale Lightweight Fill, do you have a list of possible suppliers?

R) *The following is a list of suppliers. Also MDOT has a sample for inspection at the Augusta Building.*

Norlite Corp.

35 Mt. Lebanon St.

Pepperell, MA 01463-1287

Phone: 508-433-0436

Fax: 508-433-8364

Northeast Solite Corp.

1133 Kings Highway

Saugerties, NY 12477

Phone: 914-246-9571

Fax: 914-246-2619

Consider these changes prior to submitting your bid on October 20, 2004.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Bickford", written in a cursive style.

Scott Bickford

Contracts & Specifications Engineer

SPECIAL PROVISION
SECTION 401
HOT MIX ASPHALT PAVEMENTS
(Hot Stabilized Asphalt Base)

The Standard Specification 401 – Hot Mix Asphalt Pavement, has been modified with the following revisions:

401.01 Description This work shall consist of the removal of all bituminous pavement from the existing roadway, hauling the bituminous pavement to an approved location, and processing as per this Specification. The gravel base of the existing roadway shall be regarded and compacted to the tolerances shown on the typicals, or as directed by the Resident.

All Hot Stabilized Asphalt Base shall be placed in one or more courses on an approved base and in accordance with these specifications, and in reasonably close conformity with the lines, grades and thicknesses indicated on the plans, or as established by the Resident. Excess recycled material not used in the Hot Stabilized Asphalt Base process will become the property and responsibility of the contractor.

MATERIALS

401.03 Composition of Mixtures The Contractor shall compose the Hot Mix Asphalt Pavement with aggregate, Performance Graded Asphalt Binder (PGAB), and mineral filler if required. HMA shall be designed and tested according to AASHTO T312 and the volumetric criteria in Table 1. The Contractor shall size, uniformly grade, and combine the aggregate fractions in proportions that provide a mixture meeting the grading requirements of the Job Mix Formula (JMF). The Contractor may use a maximum of **40 %** reclaimed asphalt pavement (RAP) in any **Hot Stabilized Asphalt Base** course. **The Hot Stabilized Asphalt Base shall be designed for an Air Void Target of 6.0 % at 75 Gyrations.**

The Contractor shall submit for Department approval a JMF to the Central Laboratory in Bangor for each mixture to be supplied. The Department may approve 1 active design per nominal maximum size, per traffic level, per plant, plus a 9.5mm “fine” mix @ 50 gyrations for shimming. The Department shall then have 15 calendar days in which to process a new design before approval. The JMF shall establish a single percentage of aggregate passing each required sieve size within the limits shown in Table 1. The general composition limits given in Table 1 indicate the control points of mixtures permissible under this specification. The JMF shall state the source, gradation, and percentage to be used of each portion of the aggregate and mineral filler if required. It shall also state the proposed PGAB content, the name and location of the refiner, the supplier, the source of PGAB submitted for approval, the type of PGAB modification if applicable, and the location of the terminal if applicable.

In addition, the Contractor shall provide the following information with the proposed JMF:

- Properly completed JMF indicating all mix properties (Gmm, VMA, VFB, etc.)
- Stockpile Gradation Summary
- Design Aggregate Structure Consensus Property Summary
- Design Aggregate Structure Trial Blend Gradation Plots (0.45 power chart)
- Trial Blend Test Results for at least three different asphalt contents
- Specific Gravity and temperature/viscosity charts for the PGAB to be used
- Recommended mixing and compaction temperatures from the PGAB supplier
- Material Safety Data Sheets (MSDS) For PGAB
- Asphalt Content vs. Air Voids trial blend curve
- Test report for Contractor’s Verification sample

At the time of JMF submittal, the Contractor shall identify and make available the stockpiles of all proposed aggregates at the plant site. There must be a minimum of 150 Mg [165 ton] for stone stockpiles, 75 Mg [80 ton] for sand stockpiles, and 50 Mg [55 ton] of blend sand before the Department will sample. The Department shall obtain samples for laboratory testing. The Contractor shall also make available to the Department the PGAB proposed for use in the mix in sufficient quantity to test the properties of the asphalt and to produce samples for testing of the mixture. Before the start of paving, the Contractor and the Department shall split a production sample for evaluation. The Contractor shall test its split of the sample and determine if the results meet the requirements of the Department's written policy for mix design verification (Available at the Central Laboratory in Bangor). If the results are found to be acceptable, the Contractor will forward their results to the Department's Lab, which will test the Department's split of the sample. The results of the two split samples will be compared and shared between the Department and the Contractor. If the Department finds the mixture acceptable, an approved JMF will be forwarded to the Contractor and paving may commence. The first day's production shall be monitored, and the approval may be withdrawn if the mixture exhibits undesirable characteristics such as checking, shoving or displacement. The Contractor shall be allowed to submit mix changes within 24 hours of receipt of the first Acceptance test result. Adjustments will be allowed of up to 2% on the percent passing the 2.36 mm [No. 8] sieve through the 0.075 mm [No. 200] and 3% on the percent passing the 4.75 mm [No. 4] or larger sieves. Adjustments will be allowed on the %PGAB of up to 0.2%. Adjustments will be allowed on GMM of up to 0.010. Pay factors on in-place material shall be based on the original JMF. The revised JMF shall be used for all subsequent mix.

The Contractor shall submit a new JMF for approval each time a change in material source or materials properties is proposed. The same approval process shall be followed. The cold feed percentage of any aggregate may be adjusted up to 10 percentage points from the amount listed on the JMF, however no aggregate listed on the JMF shall be eliminated. The cold feed percentage for RAP may be adjusted up to 5 percentage points from the amount listed on the JMF but shall not exceed the maximum allowable percentage for RAP for the specific application.

TABLE 1: VOLUMETRIC DESIGN CRITERIA

Design ESAL's (Millions)	Required Density (Percent of G _{mm})			Voids in the Mineral Aggregate (VMA)(Minimum Percent)					Voids Filled with Binder (VFB) (Minimum %)	Fines/Eff. Binder Ratio
				Nominal Maximum Aggregate Size (mm)						
	N _{initial}	N _{desig n}	N _{max}	25 [1 inch]	19 [¾ inch]	12.5 [½ inch]	9.5 [? inch]	4.75 [#4]		
<0.3	≤91.5	96.0	≤98.0	12.0	13.0	14.0	15.0	16.0	70-80	0.6-1.2
0.3 to <3	≤90.5								65-78	
3 to <10	≤89.0								65-75*	
10 to <30										
> 30										

*For 9.5 mm [? in] nominal maximum aggregate size mixtures, the maximum VFB is 76.

*For 4.75 mm [#4] nominal maximum aggregate size mixtures, the maximum VFB is 80.

The Hot Stabilized Asphalt Base shall be designed for an Air Void Target of 6.0 % at 75 Gyration.

401.05 Performance Graded Asphalt Binder Unless otherwise noted in Special Provision 403 - Hot Bituminous Pavement, PGAB shall be 64-28. The PGAB shall meet the applicable requirements of AASHTO M320 - Standard Specification for PGAB. The Contractor shall provide the Department with an approved copy of the Quality Control Plan for PGAB in accordance with AASHTO R 26-01 Certifying Suppliers of PGAB.

TABLE 5: METHOD A ACCEPTANCE LIMITS

Property	USL and LSL
Passing 4.75 mm [No. 4] and larger sieves	Target +/-7%
Passing 2.36 mm [No. 8] to 1.18 mm [No. 16] sieves	Target +/-4%
Passing 0.60 mm [No. 30]	Target +/-3%
Passing 0.30 mm [No. 50] to 0.075 mm [No. 200] sieve	Target +/-2%
PGAB Content	Target +/-0.4%
Air Voids	6.0% +/-1.5%
Fines to Effective Binder	0.6 to 1.2
Voids in the Mineral Aggregate	LSL Only from Table 1
Voids Filled with Binder	Table 1 values plus a 4% production tolerance for USL only

410.052 Repairs Repairs and maintenance for the Hot Stabilized Asphalt Base, during and after the placing operation, resulting from damage caused by traffic, weather or environmental conditions, or caused by the Contractor's operations or equipment, shall be completed at no additional cost to the Department.

Low areas will be repaired using a hot mix asphalt shim course. Areas up to 25mm [1 in] high can be repaired by milling or shimming with hot mix asphalt. Areas higher than 25mm [1 in] will be repaired using a hot mix asphalt shim. All repair work will be done with the Resident's approval at the Contractor's expense.

410.07 Method of Measurement **Hot Stabilized Asphalt Base** shall be measured by the square meter [square yard], and verified with delivery slips from the approved plant location..

410.08 Basis of Payment The accepted quantity of **Hot Stabilized Asphalt Base** will be paid under the Plant Mixed Recycled Asphalt Pavement contract unit price per square meter [square yard], complete in-place which price will be full compensation for furnishing all equipment and labor for removing existing pavement, regrading and compacting existing gravel base, processing, mixing, testing, placing, and compacting, excess material relocation, and for all incidentals necessary to complete the work.

Payments will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
310.24 - 100mm [4 in] Plant Mixed Recycled Asphalt Pavement	Square Meter [yd ²]